

## Paracetamol- a self medicated popular drug abuse by young student community

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### ABSTRACT

#### Objective

A questionnaire-based survey was conducted to know about the prevalence, attitude and knowledge of Paracetamol a self-medicated drug that effectively infected the young student population of age between 14-18 years.

#### Methods

The study was conducted on October - November 2008 on questionnaire-based survey in Kharagpur, West Bengal where the people form all over India resides. Total number of volunteers (male and female) was three hundred and ninety four (394) (age between 14 to 18 years).

#### Results

The prevalence of self-medication in young student was quite high and that was 66.24%. Among the self-medicated student 47.64% utilize Paracetamol as their first choice of medicine. 72.58% of the same population agreed that the practice of self-medication is dangerous. The most common reasons for self-medication were parental advice (16.61%) although they were highly educated, lack of time (25.78%), Cheap (6.5%), lack of consciousness about the disease (37.82%), reuse of old prescription (2.57%), quick relief (3.43%), and easy availability (2.0%).

#### Conclusion

From the above data we can conclude that despite majority being aware of harmful effects of self-medication its prevalence is high in the educated youth. It was observed that almost half of the young population took Paracetamol as the first choice of medication. Although it is considered to be a safe OTC product but on prolong practice it shows hepatotoxicity and other complication, which the youth is unaware off. Hence, there is a need to educate the youth to ensure safe practices. Strict policies need to be implemented on the advertising and selling of OTC medications to prevent this problem from escalating.

**Key word:** Self-medication, Paracetamol, Educated youth, OTC

### INTRODUCTION

A large number of people, when they fall sick, do not consult the physician. We have noticed that right from popular magazine editors to our domestic servant everyone thinks that he or she is a medical authority, and if we have a fever, cold, cough, constipation or indigestion, our friends or even total strangers volunteer advice on medicines

to take like expert physicians. Almost everyone we meet has an excellent remedy for whatever ails we have. In short, this is what is meant be self-medication<sup>1</sup>. May be most of the times nothing untoward happens on following such advice, but it can be dangerous. Medicines are important to help us get cured at the right time. But popping medicines on our own, without the doctor's consult can become fatal<sup>2</sup>.

The present youth will be the backbone of future India. They are carefree never giving a thought for their coming future. They have the ability to learn and acquire knowledge from their surrounding but do not have the intelligence to distinguish between evil and good. Thus the youth is more prone to habits whether good or bad, but they tend to learn bad habits faster than the good ones as they are easy to follow. Among many bad habits one of the dangerous habits is that of self-medication<sup>3,4,5</sup>.

The present survey was aimed to determine the prevalence, attitude, and knowledge of self-medication of Paracetamol among the adolescent youth and a sustained awareness to the society regarding the risks of self-medication especially paracetamol - an OTC product and its communicability for the future is warranted.

#### Methodology

Expert pharmacist and chemist developed a well-designed validated questionnaire. The young students aged between 14 - 18 yrs (i.e. from classes IX to XII, irrespective of their sex) of Kharagpur a renowned railway town in West Bengal was selected as study center as people from all over India resides there. The adolescent youth were advised to answer the questionnaire according to their own perception and experience. Three hundred and ninety four young students of schools participated in the survey. Some of our co- investigators assisted us in the overall data collection from the above study

center of Kharagpur, West Bengal. The collected data was screened and Subjects were divided into two study groups according to their pattern of drug use: self-medication and medical prescription. Self-medicated patients were further sub-divided into patients who took paracetamol as their first choice of medication and the latter, which took some other easily available medicines for the same ailments. The data thus obtained was studied statistically and the inference was made accordingly<sup>6,7,8</sup>.

#### RESULTS AND DISCUSSION

After the statistical validation of the data collected from the respondents, it indicated that (66.24%), of the youth practiced self-medications although the majority of the same population i.e 72.58% thought that self-medication is not correct. (Table 1, Fig. 1 & 2).

The young volunteers gained their knowledge of self medication from various source like neighbors, parents, friends, and relative and even by consulting with medical shopkeepers. The most important factor what we observed is the doctor patient relationship (58.6%), which has become more commercial rather than a novel service.

The main groups of self-prescribed drugs were analgesic/antipyretic (most commonly paracetamol 47.63% and aspirin 15.68%) and other drugs. The table III and Figure IV has explained the

**Table 1: Medication Pattern and opinion of respondents on self-medication**

| Number of participants | Medicine taken  |                       | Opinion regarding Self medication |         |             |            |
|------------------------|-----------------|-----------------------|-----------------------------------|---------|-------------|------------|
|                        | Self medication | Prescribed medication | Not answer                        | Correct | Not correct | Not answer |
| 394                    | 66.24%          | 32.99%                | 0.76%                             | 26.64%  | 72.58%      | 0.76%      |

**Table 2: Reason for self medication**

| Poor patient doctor relationship | Lack of time | Emergencies | Not answer |
|----------------------------------|--------------|-------------|------------|
| 58.60                            | 37.82        | 0.57        | 2.8        |

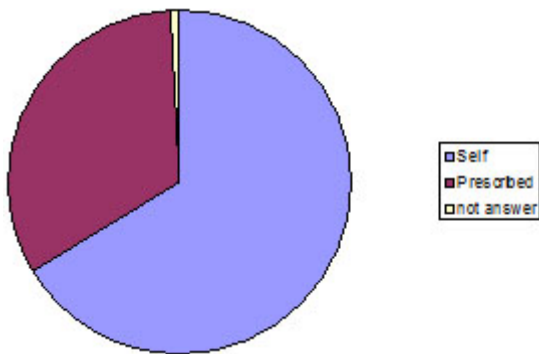


Fig. 1: Medicine Taken

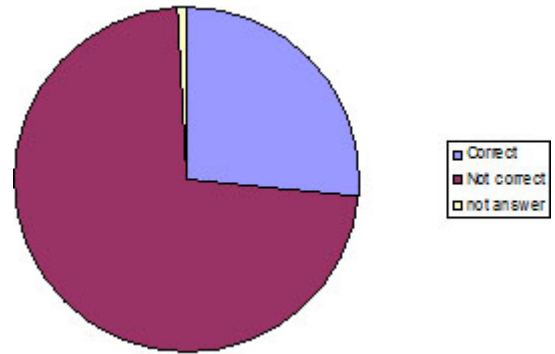


Fig. 2: Opinion about self medication

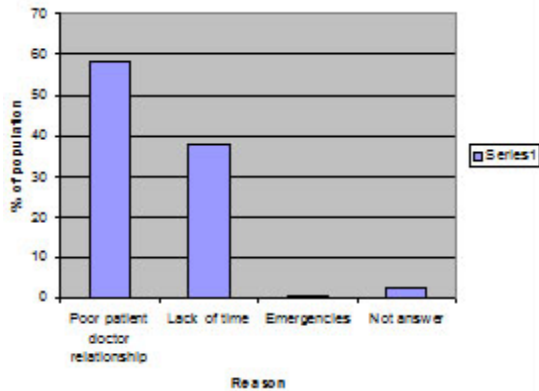


Fig. 3: Reason for self medication

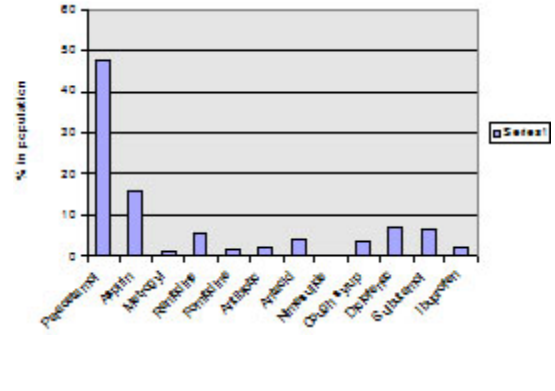


Fig. 4: Common medicine taken by self medication

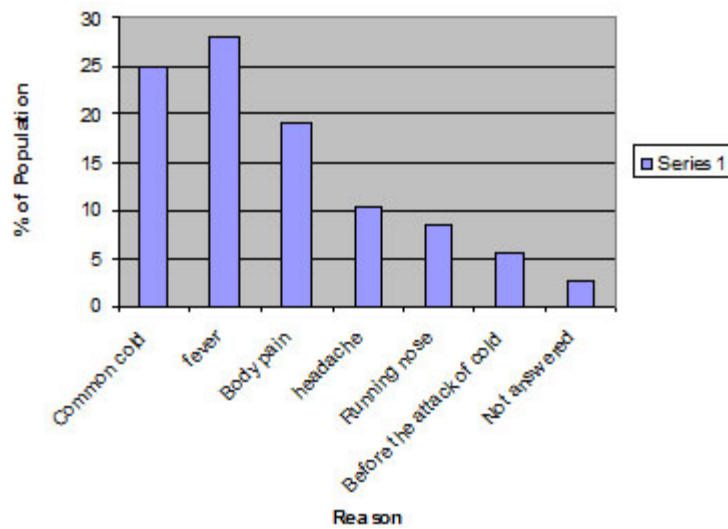


Fig. 5: Reasons for taken Paracetamol

**Table 3: Different drugs taken**

| S. No | Name of the drug | % of population used |
|-------|------------------|----------------------|
| 1.    | Paracetamol      | 47.63                |
| 2.    | Aspirin          | 15.68                |
| 3.    | Metrogyl         | 1.18                 |
| 4.    | Ranitidin        | 5.91                 |
| 5.    | Fomitidin        | 1.77                 |
| 6.    | Antibiotics      | 2.07                 |
| 7.    | Anticid          | 4.14                 |
| 8.    | Nimesulide       | 0.59                 |
| 9.    | Citrizine        | 3.84                 |
| 10.   | Codine Phosphate | 7.39                 |
| 11.   | Diclofenac       | 6.50                 |
| 12.   | Sulbutamol       | 1.18                 |
| 13.   | Ibuprofen        | 2.07                 |

**Table 4: Reason behind use of Paracetamol**

| Common cold | Fever | Body Pain | Headache | Running nose | Before the attack of cold | Not Answer |
|-------------|-------|-----------|----------|--------------|---------------------------|------------|
| 25.03       | 28.75 | 18.98     | 10.30    | 8.52         | 5.62                      | 2.8        |

various marketed formulation used by same population. The test volunteers used to take paracetamol to cure their various ailments like common cold (25.03%), fever (28.78%), body pain (18.98%), headache(10.30%), running nose(8.52%) and before attack of cold (5.62%) without knowing the proper disease condition, proper use of drug, dose and frequency of administration, side effects and the adverse reaction on their body. Finally they fall prey to the side effects and obtain serious diseases<sup>9,10</sup>. Table IV and Figure V.

### CONCLUSION

The prevalence of self-medication of paracetamol of different brand names in adolescents was high, which reinforces the need for public health interventions aiming at preventing this practice. The community health care pharmacist, pharmacy teachers with school teachers should join hands with other healthcare workers and social workers to communicate the information about the awareness of self medication.

It is also recommended to have at least one subject as pharmacy education in their academic syllabus to spread awareness among the youth of today. Mass awareness programmes among the youth with the Financial Assistance from Ministry of Health and Family Welfare, WHO, UNICEF, World Bank, DANIDA can be conducted in schools of rural and urban areas to enlighten the youth community about the dreadful disease of self- medication. If these measures are employed vigorously the practice of self-medication can be uprooted from its base.

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